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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
RAO, ANAND SHASHIKANT	
ART UNIT	**PAPER NUMBER**
2613	

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/769,309	FURUKAWA ET AL.	
	Examiner	Art Unit	
	Andy S. Rao	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-4 and 16-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-4,16-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/29/05 has been entered.

2. Applicant's arguments with respect to claims 2-14, and 16-19 as filed on 3/29/05 have been considered but are moot in view of the new ground(s) of rejection based on newly cited portions of the previously applied reference addressing the newly added limitations.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 2-4 and 16-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Boice et al., (hereinafter referred to as "Boice").

Boice discloses a video encoding apparatus (Boice: figure 5), comprising: a feature amount computation section (Boice: column 7, lines 30-40) configured to divide an input video signals into a plurality of scenes (Boice: column 10, lines 14-55) each comprising at least one temporally continuously frame (Boice: figure 2), and compute a statistical feature amount for each scene (Boice: column 12, lines 7-20); an encoding parameter generator section configured to generate an encoding parameter (Boice: column 11, lines 1-40) for each scene based on the statistical feature amount computed by said feature amount computation section (Boice: column 10, lines 55-65); a number of generated bits prediction section configured to predict the number of bits to be generated when the input video signal is encoded using the encoding parameter generated by said encoding parameter generator section (Boice: column 12, lines 60-65); an encoding parameter correcting section configured to correct the encoding parameter based on a result of the prediction of the number of generated bits which is obtained by said number of generated bits prediction section (Boice: column 13, lines 10-67); an encoder section configured to encode the input video signal using the corrected encoding parameter and generate an encoded bit stream (Boice: column 12, lines 1-5); and an output section configured to output the encoded bit stream generated by said encoded section as an encoded output (Boice: column 14, lines 35-

50), wherein the encoding parameter generator section includes a setting unit configured to correct a frame rate (Boice: column 7, lines 20-30; column 12, lines 23-25; column 14, lines 35-50: "real-time encoding" based on "repeat fields") by setting a weighted parameter to the frame rate as well as setting a weighted parameter to the quantization step size (Boice: column 13, lines 49-65; column 14, lines 1-24: "statistics are weight averaged") for macroblocks of frames to be encoded for each scene on the basis of the statistical feature amount relating to the distribution of luminance for each macroblock (Boice: column 9, lines 30-47), as in claim 2.

Boice discloses a video encoding apparatus (Boice: figure 5), comprising: a feature amount computation section (Boice: column 7, lines 30-40) configured to divide an input video signals into a plurality of scenes (Boice: column 10, lines 14-55) each comprising at least one temporally continuously frame (Boice: figure 2), and compute a statistical feature amount for each scene (Boice: column 12, lines 7-20); an encoding parameter generator section configured to generate an encoding parameter (Boice: column 11, lines 1-40) for each scene based on the statistical feature amount computed by said feature amount computation section (Boice: column 10, lines 55-65); a number of generated bits prediction section configured to predict the number of bits to be generated when the input video signal is encoded using the encoding parameter generated by said encoding parameter generator section (Boice: column 12, lines 60-65); an encoding parameter correcting section configured to correct the encoding parameter based on a result of the prediction of the number of generated bits which is obtained by said number of generated bits prediction section (Boice: column 13, lines 10-67); an encoder section configured to encode the input video signal using the corrected encoding parameter and generate an encoded bit stream (Boice: column 12, lines 1-5); and an output section configured to output the encoded

bit stream generated by said encoded section as an encoded output (Boice: column 14, lines 35-50), wherein the feature amount computation unit includes a classification unit configured to classify the plurality of scenes into a plurality of scene types (Boice: column 11, lines 5-15) based on the statistical feature amount relating to a motion vector, and the encoding parameter generator includes a setting unit configured to correct a frame rate (Boice: column 7, lines 20-30; column 12, lines 23-25; column 14, lines 35-50: "real-time encoding" based on "repeat fields") by setting a weighted parameter to the frame rate as well as setting weight parameters and a quantization step by setting weight parameters (Boice: column 13, lines 49-65; column 14, lines 1-24: "statistics are weight averaged") to the frame rate and the quantization step size (Boice: column 11, lines 20-50), respectively, for each scene according to the frame types (Boice 11, lines 15-20), as in claims 3-4.

Boice discloses a video encoding method (Boice: figure 9), comprising: dividing an input video signals into a plurality of scenes (Boice: column 10, lines 14-55) each comprising at least one temporally continuously frame (Boice: figure 2); computing a statistical feature amount for each scene (Boice: column 12, lines 7-20); encoding parameter (Boice: column 11, lines 1-40) for each scene based on the statistical feature amount computed by said feature amount computation section (Boice: column 10, lines 55-65); predicting the number of bits to be generated when the input video signal is encoded using the encoding parameter generated by said encoding parameter generator section (Boice: column 12, lines 60-65); correcting the encoding parameter based on a result of the prediction of the number of generated bits which is obtained by said number of generated bits prediction section (Boice: column 13, lines 10-67); encoding the input video signal using the corrected encoding parameter and generate an encoded bit stream

(Boice: column 12, lines 1-5); outputting the encoded bit stream generated by said encoded section as an encoded output (Boice: column 14, lines 35-50), wherein the encoding method includes a setting unit configured to correct a frame rate (Boice: column 7, lines 20-30; column 12, lines 23-25; column 14, lines 35-50: "real-time encoding" based on "repeat fields") by setting a weighted parameter to the frame rate as well as setting a weighted parameter to the quantization step size (Boice: column 13, lines 49-65; column 14, lines 1-24: "statistics are weight averaged") for macroblocks of frames to be encoded for each scene on the basis of the statistical feature amount relating to the distribution of luminance for each macroblock (Boice: column 9, lines 30-47),, as specified in claim 16.

Boice discloses a video encoding method (Boice: figure 9), comprising: dividing an input video signals into a plurality of scenes (Boice: column 10, lines 14-55) each comprising at least one temporally continuously frame (Boice: figure 2); computing a statistical feature amount for each scene (Boice: column 12, lines 7-20); encoding parameter (Boice: column 11, lines 1-40) for each scene based on the statistical feature amount computed by said feature amount computation section (Boice: column 10, lines 55-65); predicting the number of bits to be generated when the input video signal is encoded using the encoding parameter generated by said encoding parameter generator section (Boice: column 12, lines 60-65); correcting the encoding parameter based on a result of the prediction of the number of generated bits which is obtained by said number of generated bits prediction section (Boice: column 13, lines 10-67); encoding the input video signal using the corrected encoding parameter and generate an encoded bit stream (Boice: column 12, lines 1-5); outputting the encoded bit stream generated by said encoded section as an encoded output (Boice: column 14, lines 35-50), wherein the feature amount

computing step discloses classifying scenes into a plurality of scene types (Boice: column 10, lines 40-60), based on the statistical feature amount relating to a motion vector, and the encoding parameter generating step includes correcting a frame rate (Boice: column 7, lines 20-30; column 12, lines 23-25; column 14, lines 35-50: "real-time encoding" based on "repeat fields") and a quantization step by setting weight parameters (Boice: column 13, lines 49-65; column 14, lines 1-24: "statistics are weight averaged") to the frame rate and the quantization step size (Boice: column 11, lines 20-50), respectively, for each scene according to the frame types (Boice 11, lines 15-20), as in claims 17-18.

Boice discloses a recording medium having a computer program recorded therein for encoding an input video signal (Boice: column 14, lines 60-67), said computer program comprising: instruction means for instructing the computer to divide an input video signals into a plurality of scenes (Boice: column 10, lines 14-55) each comprising at least one temporally continuously frame (Boice: figure 2), and compute a statistical feature amount for each scene (Boice: column 12, lines 7-20); instruction means for instructing the computer to generate an encoding parameter (Boice: column 11, lines 1-40) for each scene based on the statistical feature amount computed by said feature amount computation section (Boice: column 10, lines 55-65); instruction means for instructing the computer to predict the number of bits to be generated when the input video signal is encoded using the encoding parameter generated by said encoding parameter generator section (Boice: column 12, lines 60-65); instruction means for instructing the computer to correct the encoding parameter based on a result of the prediction of the number of generated bits which is obtained by said number of generated bits prediction section (Boice: column 13, lines 10-67); instruction means for instructing the computer to encode the input video

signal using the corrected encoding parameter and generate an encoded bit stream (Boice: column 12, lines 1-5); wherein the means for instructing the computer to generate the encoded parameter includes means for instructing the computer to correct a frame rate (Boice: column 7, lines 20-30; column 12, lines 23-25; column 14, lines 35-50: "real-time encoding" based on "repeat fields") and the quantization step size by setting weighted parameters to the frame rate (Boice: column 13, lines 49-65; column 14, lines 1-24: "statistics are weight averaged") and the quantization step size (Boice: column 11, lines 20-50), respectively, for each scene on the basis of the statistical feature amount relating to a distribution of luminance for each macroblock (Boice: column 9, lines 30-50), as in claim 19.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad S. Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andy S. Rao
Primary Examiner
Art Unit 2613

asr
June 9, 2005

ANDY RAO
PRIMARY EXAMINER